

AWARDING THE CAREER MAJOR CERTIFICATE

Resources and Sample Options

Kentucky Department of Education
Division of Career and Technical Education
21st Floor, Capital Plaza Tower
Frankfort, Kentucky 40601
502-564-3775

July 2000

OVERVIEW OF CAREER MAJOR CERTIFICATE

This document is designed to provide information about awarding a Career Major Certificate. The information is to be used as a guide to assist teachers, counselors, and administrators in helping students to meet the certificate requirements.

House Bill 724, the 1998 Kentucky School to Careers legislation, provides the opportunity for all students to receive, in addition to a high school diploma, a career major certificate upon completion of the high school graduation requirements, work-based learning experiences, specific course work, and a career major culminating project.

High school instruction may be organized around broad career clusters or themes such as agriculture, business, or arts and humanities. The program of study may also be organized around specific occupational fields, or majors, such as Agribusiness, Administrative Services, or Speech and Drama. Schools usually cannot offer all career clusters or career majors. The only difference in career majors is the selection of electives.

Students should be made aware of the Career Major Certificate and the requirements for its completion. The Individual Graduation Plan (IGP) is an excellent way to document student activities, which will allow students to become "completers/concentrators." 704 KAR 3:305 states that "beginning with the graduating class of 2002, each student in a common school shall complete an individual graduation plan which incorporates emphasis on career development and specifically addresses academic expectations 2.37, 2.37, and 2.38."

Academic Expectation 2.36: *Students use strategies for choosing and preparing for a career.* Awareness of careers starts in the primary grades and at the middle level more specific exploration experiences occur. The total experience through high school allows students to determine a career path which fits their interests, aptitudes, and abilities, while providing strategies to prepare for a career(s).

Academic Expectation 2.37: *Students demonstrate skills and work habits that lead to success in future schooling and work.* The basic skills, knowledge, and positive work habits for successful transition from school to postsecondary experiences and to life itself are addressed throughout a student's educational experience. However, the connections between success in the workplace and skills, knowledge, and work habits are emphasized at the high school level.

Academic Expectation 2.38: *Students demonstrate skills such as interviewing, writing resumes, and completing applications that are needed to be accepted into college or other postsecondary training or to get a job.* This expectation is more significant for high school students who are preparing for the transition into the world of work. However, many aspects of learning to market one's self need to begin earlier with an awareness at the elementary level and practice at the middle level.

Career Major Completer/Concentrator:

A "Career Major Completer/Concentrator" is a student who has completed a coherent sequence of academic and technical courses relevant to a career major, a career-related culminating project, and has accumulated work-based learning hours related to a career major. All students meeting these requirements may be awarded a career major certificate by the local high school.

The occupational career cluster, the career major, and the ultimate level of education required for a career determines the course sequence to be completed at the secondary level. The sequence of courses* required for a career major completion includes the following:

- 4 career-related preparation credits within a career major;
- 3 math credits, 2 of which shall be from the pre-college curriculum, incorporating applied learning;
- 2 science credits, 1 of which shall be from the pre-college curriculum, incorporating applied learning;
- 4 English credits; and
- 2 social studies credits

The career major is the central focus for developing a Career Transition Plan or Individual Graduation Plan. The Individual Graduation Plan is to be developed by the end of the eighth grade and follow students to be updated or changed as needed throughout high school. Students will be better prepared for transition to post secondary education, work, or the military. Students may change the career major during updates and revisions of the Individual Graduation Plan. A valuable resource describing in detail the four stages of The Individual Graduation Planning process is the Individual Graduation Plan and Advisory Program Implementation Guide (1998) available from the Division of Career and Technical Education @ 502/564-3775 for \$7.00/each or it may be downloaded from the web page (see last page of this document under ADDITIONAL RESOURCES).

**Note: Students planning to enroll in bachelor's degree programs after high school are required to complete the high school course requirements for the pre-college curriculum. It is recommended that students planning to enroll in associate degree programs or postsecondary technical programs also complete the pre-college curriculum.*

The Guide to Selecting Career Clusters and Career Majors in Kentucky provides information about aligning clusters and majors with postsecondary programs and occupations, and sample programs of study. This guide can be used to assist students in developing an understanding of all career clusters. Students should begin to identify career clusters which they would like to explore beginning at the middle school level. This career exploration should lead students to selecting a career major.

This document has been revised and distributed to administrators, teachers, and guidance counselors as a resource for career guidance and planning. It is also available on the Kentucky Department of Education web page (www.kde.state.ky.us), then click on KDE Organization Units, then on Division of Career and Technical Education, then on the topic or resource in which you are interested.

Work-based learning hours may be acquired in a number of ways: clinical experience, cooperative education, entrepreneurial programs, internships, mentoring, school-based enterprises, service learning (particularly through student organization activities), shadowing, and work experience. The Work-Based Learning Guide (available from the Division of Career and Technical Education @ 502-564-3775 as well as on the web site described above), provides detailed information and guidelines about each type of work-based learning.

The Career-related Culminating Project

The career-related culminating project must include a writing entry which describes the relationship between the project and the student's future educational plans and career aspirations. The written entry should include reasons for selection and the process for completing the project. A demonstration of the project serves as the culminating event. (Culminating project = a paper, a product, and a presentation)

OPTIONS FOR CAREER-RELATED CULMINATING PROJECTS

Research has shown that project-based learning will result in increased student achievement. Students involved in projects spend more time on homework and class work, thus grades improve. Oral and written communication skills improve, and students are able to use and increase their problem-solving skills. In short, projects keep students interested and involved as they see the application of academic and technical skills at work.

Following are options for completing a career-related project and examples of the ways project-based learning can be used.

Option 1: Utilize Career and Technical Student Organizations

Students who become members of a career and technical student organization are usually interested in pursuing the program area as a career major. However, to utilize career and technical student organizations in completing a culminating project, follow specific competitive event guidelines provided by the organization.

An example of a Family, Career and Community Leaders of America (FCCLA) project relating to a Career Major in Child Care is described below:

Focus on Children Event:

- Individual or team
- Use of videotape, manuals, scrapbooks, flip charts or photo albums
- Presentation to a panel of judges
- Related to Human Services Cluster/Child Care Major

For additional information regarding vocational student organizations and career major projects, contact your local FCCLA, FFA, FBLA, DECA, HOSA, TSA or VICA advisor (s), or the state advisors listed below.

Debbie Tankersley, State Advisor Family, Career & Community Leaders of America (FCCLA)	502-564-3775
---	--------------

Curt Lucas, State Advisor Future Farmers of America (FFA)	502-564-3472
--	--------------

Steve Small, State Advisor Future Business Leaders of America (FBLA)	502-564-3775
---	--------------

Gary Colvin, State Advisor Distributive Education Clubs of America (DECA)	502-564-3775
--	--------------

Elizabeth Bullock, State Advisor
Health Occupations Students of America (HOSA)

502-564-3262

Henry Lacy, State Advisor
Technology Students of America (TSA)

502-564-3472

John Spoo, State Director
Vocational Industrial Clubs of America (VICA)
Barren County ATC, 491 Trojan Trail, Glasgow, KY 42141

270-651-7076

Management of this option would be coordinated by local organization advisor and the student(s).

Option 2: Utilize Course Projects

Course projects or problems should represent sample applications of major activities that someone in a particular career field would complete on a regular basis. These projects or problems involve related learning activities that enable students to acquire the knowledge, understandings and skills needed to complete an assignment. Projects allow students to plan, collect and evaluate information, analyze situations and develop procedures for solving problems typically encountered in the workplace. They also provide a context for teaching technical and safety skills associated with the career major.

A project may involve designing a product; making parts; assembling, testing and evaluating a product; developing and/or implementing a plan to meet a need in a local business; or operating a business in the school or community.

When choosing projects to include in a course, always consider what concepts they will teach. A good project will generally require a series of steps and the ability to make judgments and decisions when unexpected events occur.

Criteria for Selecting Course Projects:

- Large enough to cause students to acquire the major technical, academic and personal skills implied in the course goals;
- Require the completion of learning activities that result in work that would be done in a real workplace;
- Help students understand and experience the major technology used in the field;

- Require students to apply academic skills that are most needed to advance in the career field;
- Allow students to present their projects to an audience of educators, students and representatives from the career field;
- Require students to work with authentic tools and materials representative of a career major.

For a sample format and explanation of course projects, see *Using Real-World Projects to Help Students Meet High Standards in Education and The Workplace*, Site Development Guide #11, available from the Southern Regional Education Board (SREB), at 404-875-9211 or www.sreb.org.

An example of a course project is described below:

Business—The Stock Market Game

Students learn investment skills by playing the stock market with the Stock Market Game. Teams of students use \$100,000 in “play” money to buy and sell stocks on a weekly basis. They research, record, graph and track all transactions. Each skill is taught to industry standards by teachers in the business major. Sponsors provide trophies and other awards to winning teams. This project works well in business and finance classes. For more information on the Stock Market Game, contact the game’s developers, the Securities Industry Foundation for Economic Education in New York City at (212) 608-1500.

Carol Eicher, South Laurel High School Family and Consumer Sciences teacher, provides the following ideas for project-based learning. These ideas were originally designed for a Family and Consumer Science program but can be modified to meet specific course needs.

- | | |
|--|--|
| • Job Shadowing | • Plan a 7-day vacation for a client |
| • Set up a business/carry out plans | • Set up a tour for a group |
| • Entrepreneurship - FCCLA STAR Event | • Interview and hire staff for a hotel |
| • Teach content/safety to elementary students - FCCLA STAR Event | • Set up a retail shop in school |
| • Design a room - FCCLA STAR Event | • Develop specialty diets for clients |
| • Evaluate or develop a new food product/set up a taste test | • Assist in computer repairs at school |
| • Set up experiments to determine characteristics of fabrics | • Follow the stock market/form an investment club/invest/sell |
| | • Visit a nursing home/write a book about one of the residents |

- Write a children's book
- Set up an environmental project
- Set up a school newscast/program
- Set up a catering business
- Research a historic site/ develop a brochure to be given to visitors
- Develop web pages
- Set up a day care/preschool
- Design a room (kitchen) for the handicapped
- Design a bridge/order all supplies
- Design and carry out a mock trial
- Make a horse saddle
- Recruit students for JR-ROTC
- Learn to fly a plane
- Establish a race car team/pit crew
- Design/build a race car/motorcycle
- Design fabric designs for clothing
- Design a house/order all supplies
- Cover an important event/write an article
- Set up a school bank

Management of this option would be done by classroom instructor(s) and the student(s).

Option 3: Utilize Senior/Culminating Projects

A senior or culminating project is a type of event in which students draw upon the skills they have developed over time. It has three main components: a research paper, a product or activity, and an oral presentation -- all associated with a single career-related theme or topic. The format is designed to be motivating, to permit involvement of people from business or community, and to encourage integration of academic and vocational ideas.

The process of implementing senior projects involves collaboration among teachers in many subjects who agree to guide the student's selection of topics and progress.

To complete the research paper, the student uses library and other resources and produces a formal written paper. The student then creates a product or conducts an activity relevant to the subject. This might include making something or doing community volunteer work for an extended period and documenting it. Finally, the student presents his or her work orally to a committee or at a public forum.

A scoring guide, developed by the school faculty, reflects content, technical knowledge, organization and time management, the extension of knowledge outside traditional school domains, communication skills, and even appearance. For more information on senior projects, see *Using Alternative Assessments in Vocational Education*, NCRVE, 1997. You may obtain a copy of this publication by calling Distribution Services at 310-451-7002.

Many Kentucky high schools have included a senior project requirement for graduation. Each school has developed a format and set criteria for completion. South Laurel High School English teacher, Amy Hostettler, provided the following sample of criteria and ideas:

The Senior Project consists of four components:

1. The Research Paper
2. The Actual Physical Project
3. The Project Portfolio
4. The Panel Presentation

Students receive a grade on each of these four components. Sample scoring guides for each component appear on pages 10-15. The four grades are averaged in order to determine the student's senior project grade. Other work is required to complete the project. For example, students select a mentor, complete an interview, write a letter of intent to their teacher, and produce a poster presentation of their project topic. The grades for these activities are part of their senior English grade.

Students must pass each of the four components of the project. If they do not pass a portion of the project, they must repeat the component until it is completed sufficiently. Students are required to spend 15-20 hours working on the actual project. The other components also take a great deal of time to prepare and complete; therefore, it is imperative that students keep up to date and meet deadlines.

Project topics are up to students. Just about anything that the student is interested in can be developed into a project. For example, if a student is interested in music and business he may decide to write a jingle for a local business. The student could spend time exploring what the business wants the public to know about it and incorporate those ideas into his jingle. Then, the student could arrange with a local radio station to have the jingle broadcast. This student may also select to do his research paper about advertising in order to help him create an effective business advertisement for the radio.

The project must be a learning stretch for the student. This means that the student should not have already done the activity. For example, if a student wants to make a quilt as her project, but she already knows how to make a quilt, then she must incorporate something more in order for this to be an acceptable project. The student could make the quilt and hold a raffle donating the contributions to a

charitable organization. This would give more depth to the project and stretch the student's learning.

Senior Project Ideas

- Physical Therapy - Shadowing a Physical Therapist
- Architecture and Design - Drawing blueprints/golf course
- Interior Design - Decorating showrooms
- Automechanics - Painting and rebuilding cars
- Carpentry - Building a cabinet
- Advertising - Creating a jingle for a business
- Journalism - Writing articles for a local paper
- Cosmetology - Learning to do acrylic nails
- Business Management - Conducting an employee meeting
- Acting/Drama - Writing and producing a play
- Dentistry - Creating fillings/impressions
- Photography - Developing film
- Computer Programming - Creating a computer game/Creating a web page
- Forensic Science - Making and Lifting fingerprints
- Education - Teaching an adult to read
- Fashion Design - Making an outfit
- Craftsmanship - Creating synthetic marble/Creating stain glass
- Jewelry Design - Creating a piece of jewelry
- Law - Producing a mock trial
- Athletic Training - Coaching a tee ball team

Management of this option would be done by classroom instructor(s) and the student(s).

SAMPLE
South Laurel High School Senior Project
Project Portfolio

Criteria for Quality	Points Possible	Points Earned
-Completeness	50	_____
-Organization (follows Table of Contents)	20	_____
-Neatness	15	_____
-Creativity of cover and layout (dividers, sheet protectors, etc.)	15	_____

Name _____

Date _____

Grade _____

SAMPLE
South Laurel High School Senior Project
Physical Project Evaluation Form

-Completion of Project Log Book	Yes	No
• Format (date, hours, time)	Yes	No
• Reflections (15 hours minimum)	Yes	No
• Minimum of fifteen hours logged	Yes	No
-Sufficient Physical Evidence of Completion Process	Yes	No
-Reflection/Verification Letter		
• Learning Stretch	Yes	No
• Time Spent	Yes	No
• Overall Letter Quality	Yes	No
-Overall Project Quality	Yes	No

Name _____

Date _____

Grade _____

SAMPLE
SOUTH LAUREL
SENIOR PROJECT
Research Paper Evaluation Sheet

Name_____Period_____Date_____

Section I - Basic Required Components

In order for a paper to be graded, it must contain the following basic components:

YES NO

- | | | |
|-------|-------|--|
| _____ | _____ | Title page |
| _____ | _____ | Thesis (introduction/conclusion) |
| _____ | _____ | Correct documentation within the paper |
| _____ | _____ | Minimum of 10 citings including interview source |
| _____ | _____ | Minimum of four sources (not including encyclopedias, but including interview) |
| _____ | _____ | Minimum paper length (minimum/5 full pages, maximum/6 full pages) |
| _____ | _____ | Works cited page/documentation/works consulted |
| _____ | _____ | Typed in correct format (12-point font, double spaced, one-inch margins) |

- Papers lacking any one of the above items will be returned for corrections.

Section II - Use of Sources

	Excellent 8 pts.	Good 6 pts.	Fair 4 pts.	Poor 2 pts.
-Documentation of all researched information	_____			
-Works cited/consulted properly within; Sources and citings match	_____			
-Enough outside information to count as a research paper, not a personal essay	_____			
-Mixture of writer's own words with paraphrased and quoted sources	_____			
-Works cited page (alphabetical, reverse indent, proper punctuation)	_____			

Section III - Content/Organization

Excellent	Good	Fair	Poor
8 pts.	6 pts.	4 pts.	2 pts.

-Introduction/Thesis

-Quality of content (degree of topic difficulty, depth), Varied sentence structure, Mature vocabulary

-Body organization (follows and supports thesis); Transitions

-Conclusion (thesis and summary)

Section IV - Mechanics/Format

Excellent	Good	Fair	Poor
8 pts.	6 pts.	4 pts.	2 pts.

Capitalization/Punctuation

Usage/Grammar/Spelling

Correct sentences (no run-ons, fragments)

Written formal style (3rd person)

Total Points Possible 100

Total Points Earned _____

SAMPLE
SOUTH LAUREL HIGH SCHOOL
SENIOR PROJECT ORAL PRESENTATION EVALUATION

Name _____ Paper _____

Project _____ Total speech time _____

AREA I: CONTENT

(Scores based on numeric value; straight 3's do not equal "C" grade.)

INTRODUCTION: Has interesting attention getter; states or implies purpose of the presentation	5	4	3	2	1
BODY OF SPEECH: main ideas and points	10	8	6	4	2
CONCLUSION: summarizes, makes memorable impressions	5	4	3	2	1
APPLICATION OF LEARNING: self discovery evidence (clues - "I never knew...I learned")	5	4	3	2	1
ORGANIZATION: not choppy, but logical ideas flow	5	4	3	2	1
BALANCED CONTENT: explains relationship between research paper and projects.	5	4	3	2	1
LANGUAGE USAGE: transitions, avoids slang phrases, appropriate word choice, style	5	4	3	2	1

AREA II: DELIVERY

EYE CONTACT: not just reading, looks around	10	8	6	4	2
NONVERBAL: poise, posture, appropriate & natural gestures	5	4	3	2	1
VERBAL: volume, rate, clarity, vitality	5	4	3	2	1
DRESS/APPEARANCE: neatness, appropriateness	5	4	3	2	1
COURTESY: punctuality, preparedness	5	4	3	2	1
AUDIO AND/OR VISUAL AID: integral to speech, created to enhance presentation (no longer than 2 minutes of 8-10 minute presentation time)	10	8	6	4	2

AREA III: QUESTION/ANSWER PERIOD

(no more than 5 minutes at end of presentation)	10	8	6	4	2
IMPROMPTU SKILLS: how fluently, confidently, and easily student answers questions					
QUALITY OF STUDENT RESPONSES: knowledge and information; questions rephrased in answers	10	8	6	4	2

TOTAL POINTS POSSIBLE: 100

TOTAL POINTS EARNED: ____

SOUTH LAUREL HIGH SCHOOL GRADING SCALE PERCENTAGES

A:+	100	B+	89 - 91	C+	80 - 82	D+	71 - 73
A	96 - 99	B	86 - 88	C	77 - 79	D	68 - 70
A-	- 95	B-	83 - 85	C-	74 - 76	D-	64 - 67
						F	Below 64

note: Judges, please add your comments to the back of this sheet. Students need your thoughts and feedback.

Option 4: Community-Based Organizations

Many students are involved in activities outside the school. Students may be associated with a non-profit organization such as the American Heart Association, March of Dimes, Muscular Dystrophy, etc. These non-profit organizations offer many opportunities for students to become involved in community service and awareness activities. These activities could become a foundation for a career-related project. Contact the local or state chapter of any non-profit organization for information on how to become involved.

A familiar organization in many communities is 4-H. Some schools have 4-H clubs in the elementary, middle, and high schools. It is sponsored by the Cooperative Extension Program and local clubs are coordinated by a teacher or adult volunteer. Many opportunities are offered by 4-H for fulfilling the career major project. Local chapters are able to provide information on membership and activities available.

There are numerous organizations throughout the state which offer excellent opportunities for project-based learning. Junior Achievement begins at the elementary level and continues throughout high school. The mission of Junior Achievement is to teach young people to value free enterprise, understand economics, and be workforce ready. Students interested in pursuing a career in the Business and Marketing Career Cluster will especially benefit from participation in the organization.

The Boy Scouts of America and Girl Scouts of America are found in most communities and can offer many ideas for project completion.

The examples given here are just a beginning; they in no way represent all community-based opportunities available throughout the state. To become involved in your local community-based organization, contact your local elementary, middle, or high school Family Resource/Youth Service Center or the Cooperative Extension Service.

Management of this option would be done by instructor(s) and the student(s) in consultation with the community-based contact.

Career Major Certificate:

Certificates may be ordered by calling the Division of Career and Technical Education at 502-564-3775 or 3472. There is no charge for the certificates.

If you have additional questions concerning the career major certificate, you may contact KDE, Vocational Initiatives Branch, at 502-564-3775.

ADDITIONAL RESOURCES:

Individual Graduation Plan and Advisory Program, Implementation Guide, April 1998, Kentucky Department of Education, Division of Career and Technical Education.

Guide to Selecting Career Clusters and Career Majors in Kentucky, July 2000, Kentucky Department of Education, Division of Career and Technical Education.

Additional resources are available on the Kentucky Department of Education web page. Go to www.kde.state.ky.us then click on KDE Organizational Units; then on Division of Career and Technical Education; then on the specific resource you would like to view.